THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
TOSHIHIRO SHOJI : EXAMINER: LAURENCE D. FERGUSON  
SERIAL NO: 09/768,178 :  
FILED: January 24, 2001 : GROUP ART UNIT: 1774  
FOR: ULTRAVIOLET-CURABLE : #17  
COMPOSITON AND : Kw  
OPTICAL RECORDING MEDIUM : 12800

DECLARATION UNDER 37 C.F.R. § 1.132

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, D.C. 20231

SIR:

I, Toshihiro Shoji, hereby declare as follows:

1. I graduated from Yokohama National University, Graduate School of Engineering, Department of Chemical Engineering, in March 1978. Since November, 1981, I have been employed by Dainippon Ink & Chemicals, Inc. Since April 1990, I have been engaged in research and development on UV curable materials.
2. I am the inventor of the invention as claimed in the above-referenced application, and accordingly, I am familiar with the specification and claims which comprise that application.
3. I am aware of the Official Action of July 2, 2002, issued on the above-referenced application, in which Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention; and further claims 1 to 4 are rejected under 35 U.S.C. 103(a) as being obvious over Suzuki et al. (U.S. 5,573,831); and further, claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 1058250.

## PURPOSE, METHOD AND RESULTS

### (1) Purpose of the Experiments:

The purpose of the Experiments of this declaration is to confirm if the ultraviolet-curable compositions used in the Examples and the Comparative Examples of EP 1058250 (WO99/34361) and the ultraviolet-curable composition used in Example 2 of U.S. Patent No. 5,573,831 are inside or outside the range of claims 5 of the present application.

### (2) Method and Results of Experiments:

#### i) Preparation of the composition of Example 2 of U.S. 5,573,831:

(a) Urethane acrylate (trade name: UA-4200; manufactured by Shin-Nakamura Chemical Co., Ltd.) 40 g

(b) Trimethylolpropane triacrylate (trade name: TMP3A; manufactured by Osaka Organic Chemical Industry Ltd.) 30 g

(c) N-vinyl-2-pyrrolidone (trade name: NV2P; manufactured by International Specialty Products (Japan) Ltd.) 25 g

(d) Photopolymerization initiator (trade name: IRGACURE-184; manufactured by Ciba Specialty Chemicals Inc.) 8 g

The above compounds were mixed in a 200 ml SUS beaker, and then heated and dissolved on a 65°C hotplate. After the dissolution, the following material (e) was added thereto and subjected to a supersonic and mechanical treatment, resulting in a uniformly dispersed composition.

(e) Synthetic silica (trade name: TOKUSIL GU; manufactured by Tokuyama Corp) 20.6 g

ii) Each of 0.5g of the compositions was weighed and charged into a 100 ml polyethylene beaker, then 49.5 g of methanol, reagent chemicals pure grade, manufactured by Kanto Chemical Co., Inc., was added thereto, and thereafter, shaken and stirred until a uniform condition was obtained.

iii) A type 6155 pH complex electrode was connected to a pH meter (trade name: COM-8; manufactured by Denki Kagaku Keiki Co. Ltd.), and immersed into a 1 wt % methanol solution prepared as above in ii), and left to stand until a constant pH was obtained. The thus obtained value was rounded to the second decimal place. The temperature of the solution was adjusted to be within a range of  $25 \pm 2^\circ\text{C}$ .

iv) Results of the pH determination of 1 wt% methanol solution of the

compositions:

Patent describing composition	Name of Composition	pH
EP 1058250 (WO99/34361)	DAICURE CLEAR SD-318	3.2
	DAICURE CLEAR SD-211	2.7
	DAICURE CLEAR SD-17	3.8
	DAICURE CLEAR SD-2200	2.9
U.S. Pat. No. 5,573,831	Comp. of Example 2	8.2

v) Conclusion

From the above experiments, and since MD-341 could not be obtained, it is believed that the cited references U.S. Pat. No. 5,573,831 and EP 1058250 (WO99/34361) do not show or suggest the ultraviolet-curable composition of the present application (U. S. S. N. 09/768,178) which has a pH of 4.5 to 6.8.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: *November 11, 2002*

*Toshihiro Shoji*

Toshihiro Shoji



Translation of the letter of Ebisawa and Shoji of Dainippon Ink & Chemicals, Inc. sent to Hattori of Nippon Kayaku Co., Ltd., on October 1, 2002.

October 1, 2002

Senior Manager, Sales Dept. Tokyo      Mr. Hideaki HATTORI  
Functional Products Division, Fine Chemicals Group  
Nippon Kayaku Co., Ltd.  
11-2, Fujimi-1-Chome, Chiyoda-ku, Tokyo

### REQUEST FOR PURCHASE OF KAYARAD

Dear Sir:

We are happy that your company is more and more prosperous.

We are contacting you for the first time. We are now working on research and development relating to ultraviolet-curable resin compositions, for Dainippon Ink & Chemicals, Inc.

As part of this work, we have a need to purchase one of your company's products. Therefore, we would like to buy one of your company's products. This letter is a request for the purchase of your product and your approval to do so. Therefore, please approve and accept this letter.

The product number, amount of product and the appointed date of delivery are as described later. At the same time, we request that you send us a product catalogue, technical data, and MSDS. Please fill in the details in the attached form and send it to Toshihiro Shoji by mail or FAX until October 11, 2002.

We promise that if you sell your company's product, we will use it only within our company, and we will not sell or transfer it to others or other companies.

Please understand that we cannot inform you about the evaluation results obtained by the use of the product.

We would appreciate your understanding of our wishes and your favourable response.

Sincerely yours

## ITEM

(1) Content of purchase

1. Product Name: "KAYARAD™ MD-341"

(Ultraviolet Curable Resin Composition for Optical Discs)

2. Amount: 1 kg

3. Purpose of use:

Sample for comparison in research and development in our company

4. The appointed date of delivery which we require: October 15, 2002 (Tuesday)

(Sender)

Shouei EBISAWA

Specialty Coatings R&D Group, Senior Manager

Toshihiro SHOJI

Specialty Coatings R&D Group, Manager

4472-1, Komuro, Ina-Machi, Kitaadachi-gun, Saitama-ken

Dainippon Ink & Chemicals, Inc.

Imaging & Reprographic Products Technical Dept.

Tel.: 048-722-8211

Fax.: 048-721-7820

1

Year/

Month/

Day/



Dainippon Ink & Chemicals, Inc.

A Written Notice Regarding the Sale of KAYARAD™ MD-341

We notify you as follows of our decision, regarding the propriety of selling our company's product:

(\*Please select either 1 or 2 below using a "O", and put a cancellation line through the other.)

1. Selling is allowed

The appointed date of delivery: ( )

Estimated Price: ( )

2. Selling is disapproved

Reason: ( )

Nippon Kayaku Co., Ltd.

Name of Division:

Name of the Representative:

seal

2-13

2002年 10月 01日

カヤラッド製品購入ご依頼の件

拝啓 貴社益々ご繁栄の段、お慶び申し上げます。

初めて、ご連絡させていただきます。私は、現在、大日本インキ化学工業株式会社において、光硬化性樹脂組成物関連の研究開発業務に従事しております。

今般、上記業務を推進する中で、貴社製品を使用しなければならぬ必要が生じました。その為、誠に突然ではありますがありますが、貴社製品を是非とも購入致したく、此処にお願いと確認の書面を送付させていただきますので、御確認の上、御査収下さります様、お願い申し上げます。

購入希望の製品品番、購入量、納期等の内容につきましては、後記の通りです。また、同時に製品カタログ、技術資料及びMSDSを併せて送付頂きたく。



就 き ま し て は 、 2 0 0 2 年 1 0 月 1  
1 日 ( 金 ) ま で に 、 購 入 の 可 否 の 御 回  
答 を 頂 き た く 。 下 欄 に 御 記 入 の 上 、 弊  
社 ・ 庄 司 敏 博 宛 て 、 御 返 送 ま た は FAX  
送 信 下 さ り ま す 様 、 お 願 い 申 し 上 げ ま  
す 。

ま た 、 貴 社 製 品 を 販 売 頂 き ま し た 場  
合 は 、 弊 社 内 の み の 使 用 と し 、 他 者 お  
よ び 他 社 に は 転 売 お よ び 譲 渡 等 を し な  
い こ と を 、 お 約 束 致 し ま す 。

な お 、 弊 社 内 で の 使 用 結 果 に 関 し ま  
し て は 、 一 切 ご 説 明 で き ま せ ん 事 は 、  
予 め 御 了 解 く だ さ い 。

何 卒 ご 賢 察 の 上 、 御 高 配 賜 り ま す 様 、  
宜 し く お 願 い 申 し 上 げ ま す 。

敬 具

## 記

### ( I ) 購 入 依 頼 内 容

1 . 製 品 名 : 『 カ ヤ ラ ッ ド M D - 3 4 1 』

( 光 ティスク用 紫 外 線 硬 化 性 樹 脂 組 成 物 )

2 . 購 入 希 望 量 : 1 kg

3 . 使 用 目 的 :

弊社・研究開発業務における比較対  
照用サンプル

封入

4. 希望納期：2002年10月15日（火）

（差出人）

埼玉県北足立郡伊奈町小室4472-1

大日本インキ化学工業株式会社

埼玉工場

光学材料技術グループ・マネージャー

蛭澤 勝英

封入

光学材料技術グループ・主任研究員

庄司 敏博

電話：048-722-8211

Fax：048-721-7820

東京都千代田区富士見1丁目11番2  
号

日本化薬株式会社

化学品事業本部機能材料事業部

東京営業部長 服部 秀明 殿

\_\_\_\_\_ 年 \_\_\_\_ 月 \_\_\_\_ 日

大日本インキ化学工業株式会社 殿

カヤラッド MD-341 の

;) 販売に関する通知書

貴社に対する当社製品の販売の可否に  
関して、以下のように決定したので通  
知する。

(※ 以下の 1 又は 2 において、選  
択した方には○印し、他方には取消線を  
引くものとする)

1 . 販売を可とする。

納期 : ( \_\_\_\_\_ )

見積代金 : ( \_\_\_\_\_ )

2 . 販売を不可とする。

理由 : ( \_\_\_\_\_ )

日本化薬株式会社

貴事業部名 : \_\_\_\_\_

代表者御芳名 : \_\_\_\_\_ 印

18 10 / 2028



## Translation of Certificate of Receipt of Registered Post/Delivery Recording Mail

Certificate of Receipt of Registered Post/Delivery Recording Mail  
(Duplicate for the Client)

(Residence and Name of Sender) Dainippon Ink & Chemicals, Inc., Saitama Plant 4472-1, Ohaza-Komuro, Ina-Machi, Kitaadachi-Gun (zip code: 362-8577)				
Name of Receiver	Acceptance No.	Postage	Contents- Certificaiton Fee	Comprehensive
Nippon Kayaku Co., Ltd. Head of Tokyo Business Dept.	132-21- 40828-1	840	1170	Delivery Contents
			Ageo Post Office H14. 10. 1 [October 1, 2002] 12 - 18 O'clock	

# 書留・配達記録郵便物受領証(お客様控)

(差出人の住所氏名)		<div>内容証明料</div> <div>様</div>	
受取人の氏名	引受番号		
様	郵便料	申出損害賠償額	円
様			
様			

この受領証は、損害賠償の請求をする人以外に、  
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必要欄に「内容証明」または「配達記録」の印を押し、  
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 インターネット <http://www.post.yusei.go.jp>

郵便局

## Translation of Postal Matter Delivery Certificate

Manager           Toshihiro SHOJI  
Senior Manager       Shouei EBISAWA  
Specialty Coatings R&D Group  
Dainippon Ink & Chemicals, Inc., Saitama Plant  
4472-1, Ohaza-Komuro, Ina-Machi, Kitaadachi-gun, Saitama-ken (zip.: 362-8577)  
Communication Affairs           zip.: 102-8799   Kojimachi Post Office

Postal Matter Delivery Certificate

Name of recipient: Mr. Hideaki HATTORI

Senior Manager, Sales Dept. TOKYO

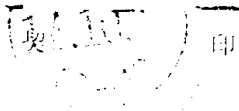
Functional Products Division, Fine Chemicals Group

Nippon Kayaku Co., Ltd.

Acceptance No.: 132-21-40828-1

The above mail was delivered on H14 (2002), Oct. 2, which is here certified.

Zip.: 102-8799 Kojimachi Post Office; H14 (2002), Oct. 2, 12 - 18 O'clock



# 郵便物配達証明書

受取人の氏名	日本化薬株式会社 化学品事業本部 機能材料事業部 課長 服部 秀明 様	
引受番号	132-21 40828-1	号

上記の郵便物は、**¥410** 21配達したのでこれを証明します。

〒102-8799  
麹町

都府県  
郵便局





3 6 2 8 5 7 7

埼玉県北足立郡伊奈町

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マニージャ 蛭澤 希英

様

差込員 庄司 敏博

通信事務

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